

Workshop Proceedings

Engaging Local Government in the Georgia Basin Ecosystem Initiative:

> A day of Working Sessions on Environmental Issues

> > June 18, 1999, Nanaimo, B.C.

PROCEEDINGS AT A

Four Themes...

The heart of the workshop's results are found in "Work Group Session Outcomes". This contains a summary of discussions and next steps around the four theme areas:

- Stormwater Management and Planning
- 2. Non-Point Source Water Contamination
- 3. Environment Indicators and Benchmarks
- 4. Wildlife and Habitat Conservation

Contents...

The proceedings are set out chronologically around the day's program.

Morning Plenary	3
GBEI Overview	4
Local Government Panel	6
Working Lunch — Q & A with GBEI	10
Work Session Outcomes	11
Stormwater Management and Planning	12
Non-Point Source Water Contamination	18
Environment Indicators and Benchmarks	22
Wildlife and Habitat Conservation	26
Closing Plenary	31
Participants	32

Sponsors

This workshop was sponsored by Environment Canada, Fisheries and Oceans Canada, Ministry of Environment, Lands and Parks, and Ministry of Municipal Affairs.

These proceedings were prepared by Lanarc Consultatants Ltd.

[&]quot;FORGING PARTNERSHIPS"

... MOBNING PLENARY

Why are we here?

The workshop and morning plenary began at 9:00 am with a welcome from the workshop coordinator, Cresswell Walker of Lanarc Consultants Ltd.

"Good morning — Let's get down to business"

Kelly Daniels,
Administrator, Regional
District of Nanaimo,
extended an official
welcome to all
workshop participants.

"Through innovation and collaboration, we hope to accomplish solutions and partnerships."

The workshop objective is to find where local governments within the Georgia Basin communities on Vancouver Island share common environmental issues and objectives with the provincial and federal governmental agencies, and to identify ways in which these shared interests can be pursued collaboratively.

Official Welcome...

The workshop is important to the Georgia Basin and Vancouver Island in particular. From an historical perspective, it is a special honour to have the workshop held in Nanaimo. Former City of Nanaimo Mayor, Joy Leach, had participated in the BC Round Table Initiative on the Georgia Basin.

Through growth management and cooperative work and collaboration between governments, it is possible to deal effectively with Vancouver Island's most pressing growth management and environmental issues. The impacts of growth on the East Coast of the Island are getting increasingly severe. The RDN has responded with a growth strategy, which is based on collaboration amongst all levels of government. Based on this experience, participants of the workshop are encouraged to be innovative, collaborative and practical.

GEORGIA BASIN ECOSYSTEM. INITIATIVE...

Bruce Kay, Manager,
Georgia Basin
Coordination Office,
Environment Canada,
gave an overview of the
GBEI in a presentation
entitled: "Working,
Together for the
Georgia Basin"

What is the "GBEI"?:

- The Georgia Basin ecosystem is trans-border, encompassing most of the Georgia Basin and Puget Sound coastal regions in Canada and the United States.
- Environmental issues are directly related to an increase in population and the associated development and growth.
- Growth and human activities must be managed in order to achieve healthy, productive and sustainable ecosystems and communities.
- The federal and provincial governments cannot solve the problems of the Georgia Basin alone. All orders of government, including First Nations, need to work together to address these issues.
- GBEI will develop collaborative initiatives across the international border. It will work to build relationships with the First Nations and seek partnerships with Provincial and local governments.

Pia Archibald, GBEI
Coordinator for the
Ministry of
Environment, Lands and
Parks, spoke to the
issues to be addressed in
the day's workshop from
the perspective of the
GBEI.

Local governments can benefit from drawing on federal and provincial government resources. Federal and provincial government agencies can take steps forward as a result of local government decisions. The goal is to identify areas where all orders of government can work together.

To meet this challenge, GBEI provides a framework for coordination, cooperation and communication focusing on achieving common goals and objectives. Together GBEI and local government partners will be able to build common environmental goals and objectives, and benefit from increased cooperation.

This workshop will provide local government with an opportunity to assess whether the GBEI projects and programs will be useful in addressing their environmental priorities; and if so, identify the specific projects.

In the workshop needs assessment of Vancouver Island local governments that was conducted prior to this workshop, the most critical environmental issues were identified as the workshop's principal topics. The issues are multi-jurisdictional, and cooperation is already occurring in some areas.

The Four Programs of GBEI

Bruce Kay, Manager, GBEI Coordination Office

AIR QUALITY

<u>Objective</u>: Air quality that supports healthy and vibrant communities and healthy ecosystems.

- Air quality within the Canadian portion of the Georgia Basin consistently meets Canada Wide Standards and BC Air Quality Objectives.
- 2 Residents and tourists have a clear view of their natural surroundings (mountains) on sunny days.
- 3 Stress on the Georgia Basin ecosystem resulting from the impacts of local and global emissions of contaminants is reduced.

WATER QUALITY

<u>Objective</u>: Clean water to protect and improve aquatic ecosystem health and human well-being in the Georgia Basin.

- Georgia Basin ecosystems are not adversely affected by toxic chemicals.
- Productive shellfish harvesting areas are maintained and restored to ensure a sustainable shellfish resource for the benefit of commercial, recreational and First Nation users.
- 3 Liquid waste management programs are developed and implemented to arrest and reverse pollution, and minimize public health risks in the Georgia Basin.
- Fresh, marine and ground water ecosystems are protected from effects of non-point source pollution.

HABITAT AND SPECIES

Objective: Terrestrial and aquatic fauna and flora, biodiversity and human well-being are maintained.

- Diversity and abundance of wildlife is sustained through a network of protected areas.
- The needs of terrestrial and aquatic fauna and flora are integrated in land and water use and resource decisions.
- The public understands the importance of habitat conservation and healthy and diverse ecosystems and this translates into community demand, support, commitment and action on conservation.

SUSTAINABLE COMMUNITIES

Objective: Residents and decision makers in the Georgia Basin understand and respect the integrity of the ecosystem.

- Community-based actions around sustainability are supported.
- Decision-making with respect to the Georgia Basin ecosystem is continually improving.
- 3 Information is accessible and knowledge is shared.
- 4 Effective, coordinated communications and cooperative approach (internal and external audiences).

GBEI's Action Plan for 1999/2000

In addition to continuing to work on the four priority areas, the GBEI partnership will:

- Improve engagement of local governments in GBEI project design and implementation (this workshop is a first step).
- Add/integrate objectives and priorities as partnership expands (e.g. Fisheries and Oceans Canada, BC Ministry of Fisheries, Health Canada, BC Ministry of Health).
- Identify opportunities to expand partnerships with First Nations.
- Develop and report on Basin-wide indicators.
- Strengthen ecosystem approach in support of growth strategies, sustainable communities, social and economic issues and interests.

"ENGAGING LOGAL GOVERNMENT IN THE GEORGIA BASIN ECOSYSTEM INITIATIVE"

LOCAL GOVERNMENT PANEL...

To prepare for the workshop, a needs assessment was completed to determine the leading environmental issues from the perspective of local government. The work session topics were the top issues identified by local government representatives. To set the tone and give some early examples of how local government can collaborate with other government agencies, the work session topics were introduced by a panel of local government representatives.

Dalia Hull, Environmental Technician, Capital Region District (CRD).

Stormwater Planning and Management

Dalia described the highlights of the Capital Regional District stormwater initiative with local municipalities.

Goal of program: Build partnerships with municipalities to minimize effects to environment and to enhance quality of life.

CRD is responsible for:

- stormwater quality monitoring
- technical assistance for municipalities
- public education
- coordinated watershed management
- compile and promote best management practices

Challenges of the program included:

- deterring sources of chemical contaminants
- education how to get information and how to reduce contaminants
- how to monitor actions that contribute to the contamination of stormwater

Successes included:

- CRD developed a bylaw that only allows uncontaminated stormwater to enter the system
- within 4 years, from 1993 to 1997, there has been a 50% reduction of discharges and sewage contamination (could not have been accomplished without municipal support)
- strong political and public support allowed CRD to expand the program
- development of more partnerships with municipalities

... DRAWING ON COMMUNITY LEVEL EXPERIENCE

Tom Anderson, Manager, Development Services, Cowichan Valley

"We need cooperation and appropriate regulations for local government to play a greater role in improving the ground water situation."

Non-Point Source Water Contamination

Tom focussed on how the CVRD is addressing the septic system failures that are now contaminating shellfish areas and domestic groundwater supplies. He also spoke to how contamination from surface water runoff associated with construction, agriculture and urban land uses was impacting ground water.

Contamination from surface water runoff associated with construction, agriculture and urban land uses is impacting ground water. Most opportunities for regulation come through the approval process for development permits. Drainage systems are required to ensure that run-off is treated. A rezoning south of the Cassidy airport, adjacent to a significant aquifer, is a good example of a success. A condition of a rezoning from industrial to commercial use was a requirement to avoid contaminants going into the aquifer.

Highlights of CVRD activities are:

- CVRD requires owners to use advanced sewage treatment systems and sometimes to put in community systems.
- With respect to surface runoff, CVRD requires drainage plans to ensure surface runoff is adequately treated in both the industrial, commercial and multi-family development.
- Through development permits, CVRD requires developers to use oil water separators and special treatment system for their sewage.
- On some sites, before a use is permitted in a development, planning department approval is required to ensure that there would be no contaminants going into the water or onto the surface.

However, only new developments are being addressed in this way. Most of their main issues are the result of previous development. New environmental legislation is needed to give local government greater enforcement powers over failing septic systems. There is also need for home owner funding grants to upgrade existing failing septic systems. An example is of such and assistance program is the "BC Hydro Home Improvement Loan".

LOCAL GOVERNMENT PANEL...

Laura Taylor, Director, Environmental Services, Capital Region District (CRD) "Future developmental work will be directed at creating greater public awareness of air quality issues and opportunities, finding common air quality objectives between jurisdictions and encouraging local governments and citizens to take affirmative action to maintain and improve air quality on Vancouver Island."

Air Quality

Laura presented an overview of the CRD's approach to air quality improvement in the greater Victoria area in a presentation entitled: "Air, the Neglected Sink on Vancouver Island"

Governments on Vancouver Island spend much less attention on air quality than water or terrestrial environment quality. Some of the reasons that Vancouver Island air quality should be a concern for governments are:

- Doing something now will minimize future problems on the Island.
- Population and development growth on Vancouver Island will have impacts on air quality.
- Asthma related service incidents are increasing rapidly on the southern Island (may indicate air quality problems).

As an indicator of air quality, asthma related service utilization rates were used. Utilization rates have increased alarmingly over the years. Though these measures are only suggestive, it is indicative of degrading air quality and of the need for more specific measures of air quality.

Challenges:

- Lack of interest and support
- Lack of resources

Solutions:

- Build partnerships
- Build awareness

Victoria NAPS station:

- Monitor particulates
- Provide good information to build program

Clearly, more air quality measurement is required to support air quality management. Partnerships between local governments and provincial and federal agencies is helping by joining limited resources now dedicated to this issue.

PAGE 9 LEVEL EXPERIEN

Sharon Fletcher. Manager of Strategic Planning, City of Nanaimo

"At the local government level, it is becoming more apparent there is a need to evaluate and track program progress in order to have confidence the correct decisions are being made and that we are not creating unexpected outcomes."

Environment Indicators and Benchmarks

As the environment is beginning already to show signs of stress that are affecting peoples' perceived quality of life, the first challenge is one of identifying the right indicators amongst so many, to show us the way and to track our progress in achieving our environmental goals.

What needs to be done?

- Identify a few broad regional indicators -- since the natural environment and impacts from the built environment do not acknowledge municipal boundaries, we need to know what is coming and going across boundaries.
- Compare findings with other communities -- using consistent and comparable data, inter-regional analysis will provide richer information.
- Build stable partnerships -- since piecemeal resources are often stored that way, information gets lost over time. comparison and duplication of results is difficult, and scarce data are wasted.
- Focus resources -- by identifying priority areas, municipalities can direct the numerous requests to partner, with seemingly unrelated activities initiated by a variety of organizations working independently within municipal boundaries, into areas where cumulative efforts can make measurable improvements. Currently resources are so scattered and stretched that there are too many areas to measure outcomes and too little change to record progress, resulting in a perception that a lot of tax payers money is being spent with little or no progress made.

Karen Hurley, Manager, Environmental Services, Municipality of Saanich

Wildlife and Habitat Conservation

Karen presented the Municipality of Saanich's Atlas of Environmentally Significant Areas as an example of a collaborative project between local government and provincial agencies. The atlas was created through partnership efforts with DFO. The Atlas, shaped around the character of Saanich's environmental issues and the regulatory approach available to local governments, is an important new tool aimed at addressing local conditions. Saanich's Atlas of Environmentally Significant Areas is:

- ■Organized around an air photo base map reference to make it most accessible and meaningful to the people who must use it
- ■includes field work components
- Focuses on Riparian zones
- Includes vegetation and sensitive ecosystem mapping and wildlife and habitat protected areas

Federal and provincial government can provide funding to local governments and attend important workshops and functions (participant funding).

> "ENGAGING LOCAL GOVERNMENT IN THE GEORGIA DASIN ECOSYSTEM INITIATIVE"

WORKING LUNCH - 'Q + A'

Bruce Kay of the Georgia Basin Coordination Office fielded a few questions over the lunch period

Q: Does GBEI only deal with government? Does it also deal with citizens? A: Yes, mainly governments; but, GBEI also tries to include and inform residents in the Basin who also provide input in return. Partnerships begin at the federal and provincial level, then reach out to local governments.

Q: Why are NGO's absent from today's meeting? A: This workshop is to deal with local govenrments specifically.

Q: How much money is there for the local governments?

A: GBEI is not a granting or funding program. It is a partnership program. So, what we want to do today is to see where there are more opportunities for partners. We are here to bring together the GBEI partners which would include local governments, federal and provincial governments and to see what resources they could bring to address common problems and solutions.

Q: How much funding do you have for programs?

A: For Environment Canada for over a five year period, which started last April 1st 1998, about 22 million dollars was available. If you add that to our normal budget, we have about 40 million dollars over five years. We estimate that in the first year there are about 30 million dollars worth of program amongst all of the agencies that are already or are being focused on achieving goals and objectives of GBEI. You may be looking at 100 to 150 million dollars over five years.

Q: Is it directed towards anything? Do you have some flexibility on how you spend it in each region, or is it targeted? A: Funding is targeted with broad objectives in their specific areas. Non-point source pollution is very broad, so part of what we are trying to do here today is to find out if there are opportunities for partnerships.

... WORK GROUP SESSION OUTCOMES

On the following pages, the outcomes of each work group session are recorded.

The partnership of federal and provincial agencies in the GBEI recognizes the multijurisdictional nature of the challenges to be addressed in achieving environmental sustainability in the Georgia Basin. The topic oriented work group sessions were designed to bring federal and provincial agency representatives face to face with local government staff in an informal setting to discuss their common environmental issues and interests.

Participants in each work group session brainstormed a large list of "headlines" or visions for future improved conditions in their own topic area. The participants then reduced the number of headlines by grouping those that were similar in nature. Each work group then identified "actions", "collaborators" and "follow-up" items for each headline. In summary, each group worked toward four outcomes:

Headlines: Generate the visions or objectives within each area;

Actions: List the key activities to achieve the headlines;

Collaborators: Define the collaborators in the activities; and,

Follow-up: Suggest the first steps to create the partnerships and carry out the actions.

The work group session facilitators were introduced as:

Cynthia Hawksworth: Stormwater Management

Bruce Holmes: Non-Point Source Water Contamination

Erik Karlsen: Air Quality

Bruce Kay: Environmental Indicators and Benchmarks

Marc Packenham: Wildlife and Habitat Conservation

A note about Air Quality and why there was no work group session on this topic.

Too few workshop participants had expressed an interest in air quality in their registration choices to warrant a work session dedicated on this topic. A show of hands at the workshop confirmed there was only one local government representative present whose first choice for the day was for an air quality work group session. Though a secondary choice for many participants, there was general recognition of the importance of the issue in the region and that developmental work in this area would be appropriate. Air Quality would be be considered instead during the day as a part of the Environmental Benchmarks and Indicators Work Group session.

"ENGAGING LOCAL GOVERNMENT IN THE GEORGIA BASIN ECOSYSTEM INITIATIVE"

STORMWATER PLANNING AND MANAGEMENT

The following headlines were created by this working group by clustering similar headlines into overarching headlines:

Watershed Management Plans Adopted by Council

Stormwater Drainage Pilot Mimics Natural Systems

Clean Water Program Works (\$)

Stream Habitat Quality Improves

Financial Incentives Established For Better Stormwater Management

Clean Water - It Starts With You!

Watershed Partnerships Formed

Participant Interests

Specific interests identified at the workshop included:

- Fish and fish habitat
- Stormwater and land use management
- Public education regarding stormwater management
- Responsibilities for management of stormwater quality
- The public interest with respect to stormwater management
- Facilitating efficient approvals that consider environmental impacts
- Learning from experiences in Washington State
- Relationship of stormwater management to GBEI water initiative
- Identifying general goals and some practical actions regarding stormwater management
- Learning more about ways that senior governments can work with local government on stormwater management issues, and tools that local governments are interested in pursuing
- new, alternative, innovative and ideas and tools for control of stormwater quantity and quality

- How to minimize costs while maintaining environmental quality
- Establishment of a holistic approach to stormwater management
- Pilots in partnerships on stormwater management
- Stormwater issues that cross jurisdictional boundaries, and looking at stormwater from a multi-jurisdictional perspective
- Creation of a guide regarding stormwater management
- Establishment of a definition of stomwater that focuses in watersheds rather than pipes

... WORK GROUP SESSION OUTCOMES

Participants in this work session developed a large list of headlines or visions for future improved management of stormwater on the east-coast of Vancouver Island. The participants then reduced the number of headlines by grouping those that were similar in nature (to create the list of headlines on the previous page) and then, finally by compressing them further, to create the following three headlines.

Headline #1: "Watershed Management Plan Implemented by Community"

Desired Actions

Implement a watershed planning process that includes:

- Identification of watersheds
- Priorization of watersheds
- Inventory watersheds, data collection
- Set goals and objectives for each watershed
- Development of Official Community Plans that enable/encourage watershed management plan
- Establish development bylaws with alternative requirements based upon watershed planning (Difficulties related to the election cycle for local government officials were recognized)
- Establish a ministry approval mechanism for watershed management plans (Liquid Waste Management Plans or Memorandums of Understanding noted as options)
- Develop a guidebook for stormwater management and liquid waste management plans
- Develop an education program on stormwater management for elected officials and the public (e.g. newsletters/newspapers, videos, presentations to community and school groups

Potential Partnerships

It was agreed that the provincial and federal governments should continue to work with local governments, First Nations and the public on pilot watershed management plans that address stormwater management, and should profile successes. Development of a guidebook on stormwater management/watershed management planning by the senior levels of government based on the pilot projects would be valuable. In addition, it would be useful for the federal and provincial governments to explore the possibility of establishing watershed management plans through such mechanisms as liquid waste management plans or memos of understanding.

Partnerships were seen as being very broad, including federal, provincial and local governments, First Nations, non-government organizations, and community groups. This reflects the need to find and share data and information amongst all users and generators.

STORMWATER PLANNING AND MANAGEMENT

Headline #2: "Smart Development Mimics Natural Systems"

Participants in this work group session saw opportunities to achieve improved stormwater management as a result of the reduced development costs and market appeal of alternative development standards as compared to traditional solutions. The availability of local integrated planning and coordination mechanisms such as Environmentally Sensitive Area atlases were also viewed as useful. Some of the constraints which participants identified were a continued reliance on traditional thinking due to such factors as fear of change, the cost of challenging existing regulations, traditional training and the risk of trying something new. Those participating in this work session also noted that a lack of examples, universal development cost charges and the land tenure system discourage new innovative approaches. Finally, participants observed that the referral process inhibits integrated planning.

Desired Actions

- Change thinking
- Case studies that promote smart thinking
- Distribution of risk (If developers bear all of the risk of innovative approaches, development will not occur)
- Performance-based regulations
- Comparative development alternatives
- Different yield different strategies
- Compare differences in costs
- Analyse how well alternatives will work
- Resource atlas early site assessment
- One Stop Service Centre
- Idea is to speed up development process and to make it more responsive
- Fast track smart development
- Enhance market incentives to ensure innovative development (taxes, development bonuses)
- Exchange of development opportunities
- Amend regulations to allow smart development
- Demonstration projects in both urban and rural contexts
- Untaxing nature establish incentive to allow developers to contribute without paying capital gains

Potential Partnerships

The participants agreed that key follow-up activities will be the completion of case studies on the Island and sharing the information with provincial and federal government staff, all local governments, the development industry and the public. In particular, it was noted that it would be valuable to undertake a pilot project that looks at retrofitting existing development. The importance of changing thinking relates to the need for joint risk taking. There is value in creating a hypothetical project as a means to compare costs.

WORK GROUP SESSION OUTCOMES

Headline #3:

"All Levels of Government, NGOs, and Industry Agree to Cooperate to Restore and Protect Watershed"

Participants in this session saw opportunities to move forward based on the shared goals, open communication, cooperation and synergy of resources that currently exists amongst the various parties. The current community/industry awareness of the impacts of stormwater in local watersheds and public support for management of these impacts is also important in providing opportunities for influencing urban developments. More specifically, the DFO Stewardship Coordinators were seen as providing an opportunity for improving cooperation and coordination.

Some of the constraints identified were local government, non-government organizations and industry mistrust of senior levels of government and mistrust between industry and local communities, and local government elected officials lack of knowledge and political will. It was also noted that this is a multi-jurisdiction issue and that at present there is no clear lead agency for watershed management. In addition, the nature of government at this time means that there is a lack of government resources for new initiatives/roles, and implementing partnerships of this nature is difficult since governments operate on a fiscal year basis, while watershed partnership is a multi-year task.

Desired Actions

- Build on and support existing partnerships and promote successes (e.g. Nanaimo First Nations, Cowichan Tribes, Baynes Sound Round Table, R.R.V./Sooke, Nanaimo Salmon in the City, Kingfisher Creek, Campbell River Estuary Management Commission, Tsolum River Task Force, etc.)
- Identify stakeholders including industry and local watershed lead (with a long term interest)
- Jointly inventory resources (in-kind and cash) available to contribute to the project
- Develop educational toolkits for watershed planning customize for industry, homeowners, farmers, local governments, NGOs
- Utilize Environmental Youth Teams and the Department of Fisheries and Oceans' Stewardship Coordinators to liaise with local industry and NGOs to increase awareness of provincial federal government programs
- Explore ways that federal and provincial orders of government can communicate directly and regularly with local governments on a regular basis to improve local government awareness of senior government priorities and programs and to facilitate better coordination (This might involve annual meetings with local governments in a region or, if resources and time permits, with individual municipalities.)

STORMWATER PLANNING AND MANAGEMENT

Potential Partnerships

The participants in this session emphasized the value of profiling some of the successful existing partnerships and the development of toolkits to support the various parties involved in stormwater management and watershed planning. Workshop participants also emphasized the need to establish good solid communication links between senior governments and local industry, NGOs, First Nations and local governments on the Island.

... WORK GROUP SESSION

The participants of the Stormwater Planning and Management work session noted the importance in taking a watershed planning and management perspective when addressing stormwater management. The value of challenging traditional thinking and joint risktaking regarding stormwater management was also emphasized.

Three types of projects were identified as valuable for follow-up.

Follow-up and Next Steps

Pilot projects:

The development of Vancouver Island-based pilot projects on stormwater planning and management was seen as very important. It was also considered important that information be shared widely regarding already completed projects and the proposed pilots as they proceed. Some of the criteria which were identified to assist in designation of potential pilots were:

- Potential to fix a problem
- Site or area has few problems that might complicate process
- Proponent can show they can bring other parties to the table
- There is a senior local government staff person/elected official who will champion the project
- Lessons will be learned that can be applied elsewhere

Guidelines/Toolkits:

Based on experiences with pilot projects and successes, an education program emphasizing guides and toolkits should be developed. These might be targeted to particular parties.

Communications:

The value of senior government direct communications with local governments was considered important. A number of mechanisms were identified, including Memorandum Of Understanding, joint involvement in liquid waste management planning, participation of senior government staff in the development and implementation of regional district growth strategies regular annual meetings with local governments and taking advantage of DFO Stewardship Coordinators as a means of communicating with industry and the public.

NON-POINT SOURCE WATER

Participants in this work group expressed "headlines" as goals. From this list of potential goals, the group chose three goals for which to develop key actions and potential partnership opportunities. These are detailed on the following pages. The following initial goals were created by three sub groups:

Sub - Group 1

Increased public awareness resulting in change in attitude/habits

To be able to harvest shellfish along the east coast

Groundwater protection plans resulting in protected aquifers

Increased and easier approval for innovative technology for septic/sewage treatment

Reduction in falled on-site systems

Funding program to assist in fliding falled septic systems

Sub - Group 2

Educated public and professionals

Achievable Best Managment Practices

Level playing field with coordinated roles and responsibilities

Initial examples of improvements

Sub - Group 3

Georgia Basin wide assessments complete

Multiple-level partnership funds for repair to septic systems

Industrial/commercial stewardship program successful

MORH GROUP SESSION

Headline #1: "Clean shellfish Harvesting Areas on East Coast of the Island"

Actions

- Marketing of positive outcomes
- Federal and Provincial orders of government have to be seen to be supportive of local government
- Develop "quick response" programs that can be accessed by local governments
- Agency collaboration.
- Regional Growth Strategies and Official Community Plans to reflect standards and codes
- Multi-order memorandums of understanding to collaborate on model development
- Multiple stakeholder roundtable to have input on models
- Reallocation of resources to achieve this goal
- Public education program delivered by locally "trusted" teacher
- Develop an enforcement "tool-kit" that can be shared by all government partners to ensure that the appropriate level of action is taken.
- Penalize violators

Opportunities

The group focused on developing a process for multi-stakeholder groups to meet to identify the problem, options to solve the problem, an implementation strategy, and the outcome. This process could be applied at both the subregional level (sub-regional growth strategies) or at a higher level (Georgia Basin Ecosystem Initiative).

NON-POINT SOURCE WATER

Headline #2: "Protected Groundwater"

Actions

- Form partnerships
- Develop BMPs/tool kit
- Develop models from successful pilot projects
- Educate media, politicians, staff, public (e.g., groundwater video)
- Pilot incentive options (e.g., interest free loans to repair septic systems)
- Develop links with community to find champions
- Design and address a range of land use and condition that protect groundwater

- Cost/benefit analysis
- Form agreements between stakeholders to maintain and upgrade an inventory database
- Develop good quality information for media; including a media strategy
- Identify the needs of stakeholders
- Champion groundwater legislation
- Revamp existing legislation to reflect groundwater concerns

Opportunities

This group focused on identifying the elements of a pilot project and potential partners to address groundwater issues.

- Elements of a Pilot Project to address groundwater issues are:
- Identify pilot area (i.e., within the CVRD)
- Establish the ground water issue that the pilot project will address,
- Establish the indicators and how they are to be measured
- Identify causes of the problem (e.g., sources of contamination)
- Develop strategies to resolve the issue(s)
- Develop an implementation strategy
- Identify the outcomes from the pilot project (e.g., BMP, tool kit)
- Identify resource and funding needs to implement these outcomes

Potential Pilot Project Partners:

- Well drillers
- **■** Water Districts
- Improvement Districts
- Regional Districts
- Municipalities
- Provincial government agencies

- Federal government agencies
- First Nations
- Schools
- NGOs
- General public

WORK GROUP SESSION OUTCOMES

Headline #3:

"Habits and attitudes of public change resulting in reduced NPS pollution"

Actions

- Develop economic incentives to influence attitudes/ behaviour
- Agency partnerships for delivering information.
- Target appropriate audience
- Realistic timelines for achieving compliance.
- Establish a media campaign
- Measure success of efforts
- Evaluate the cost of changing habits/behaviors
- Promote local successes
- Pilot projects to test changes in habits and attitudes

Opportunities

This group focused on identifying the types of approaches that could be used to change a behavior or habit that adversely impacts the water resources.

- Creative marketing (partnership with media)
- Local champion or role model (traditional and nontraditional out-reach partners)
- Educational opportunities (NPS/ Groundwater school kits, presentations
- Timelines and Benchmarking

Follow-up and Next Steps

Common themes across all three headlines were:

- Develop multi-jurisdictional stakeholder committees to identify issues and goals
- Collaborate on funding
- Do pilot projects
- Develop simple processes to resolve problems, BMPs and tool-kits
- Explore incentives for fixing septic systems
- Broadcast success stories

ENVIRONMENTAL INDICATORS AND BENCHMARKS...

The following headlines were created by the Environmental Indicators and Benchmarks working session:

June, 1999: "Top 10 polluters list released - no changes in past 3 years"

November, 1999: "Local elections dominated by environmentalists_industry greans"

August, 2000: "Jargon dispelled, "environment" understood"

January, 2001: "Business and interest groups settle on key environmental goals"

September, 2001: "75% of Island communities achieve first year targets"

"Joint Long-term Funding Initiative Results in Identification of Baseline Environmental Data"

"One-Stop Shopping Data Mart Co-op Established"

"Communities Achieve Capacity to Act on Environmental Issues"

"Local governments, First Nations , Senior Governments, Business and NGO's Agree on Common Environmental Indicators for Valuable Watershed"

As an overarching vision, workshop participants chose:

"75% Of Island Communities Achieve 1st Year Targets"

Work Session Objective

Explore ways in which local governments can work with federal and provincial environmental agencies to define and implement a system of environmental benchmarks and indicators for use in setting common environmental standards and objectives amongst Vancouver Island communities.

... WORK GROUP SESSION

Participants have chosen three headlines for defining Actions and Partnerships.

Headline #1: "One-Stop Shopping Data Mart Co-op Established"

Participants saw opportunities to build on the shared interests and needs to access data and information, recognizing that there were a number of pilot projects already in existence, as well as significant advances in computer, information, and GIS technologies that can provide for improved transfer, exchange, and interpretation of information. Constraints that were identified included the lack of common data standards (collection, reporting etc.), data ownership (commercialization, licensing), meeting a variety of client needs/demands, lack of a leader or champion, and resources.

Desired Actions

- Build on existing pilot projects (e.g. Greenways, CORDLINK, Nanaimo First Nations)
- Identify a corporate champion
- Agencies provide metadata for all their projects
- Effect policy changes with respect to data ownership and use
- Develop a catalogue or 'virtual library' of data and information (central index)*
- Examine technological flexibility for sharing/capturing data*
- Establish Basic Data Standards and Protocol*

Potential Partnerships

Partnerships were seen as being very broad, including federal, provincial, local governments, First Nations, NGO's, and community groups. This reflects the need to find and share data and information amongst all users and generators.

^{*}indicates most urgent requirements as identified by participants

ENVIRONMENTAL INDICATORS AND BENCHMARKS...

Headline #2: "Communities Achieve Capacity to Act on Environmental Issues"

Participants saw opportunities to achieve this headline through the development of a 'tool box' for communities, including training, resource material, and access to expertise. Collaborative approaches to funding and utilizing tribal local history knowledge were also seen as opportunities to move forward. Constraints included fragmented and short-term funding, poor communication, (lack of) community interest and buy-in, economic and social issues (disincentives, unemployment, poverty), lack of leadership and direction and lack of historical knowledge.

Desired Actions

- Develop a pilot project to inventory local, tribal, and historical information to develop environment and health indicators for monitoring and evaluation purposes
- Compile and promote access to an inventory of existing resources human community, training, material, financial across all government and NGO's
- Define the ecological principles, goals and strategies from which communities may work to develop their indicators, standards and targets, and outreach tools to support the process

Potential Partnerships

Again, partnerships were seen as being very broad, including federal, provincial and local governments, First Nations, NGOs, and community groups. The need to help build this capacity in support of and integrated with, local initiatives such as OCP's and growth strategies was stressed.

Next Steps

The following next steps were agreed to at the workshop:

- A draft listing of subject headings that could form the basis for an information clearinghouse will be prepared and circulated to workshop participants. (Lead: Mary Beth Berube, Environment Canada)
- The results of a GBEI-sponsored workshop on environmental indicators (held June 17) will be forwarded to workshop participants. (Lead: Bruce Kay, Environment Canada)
- Specific GBEI projects underway or planned that support the actions identified in the workshop will be shared with workshop participants. (Lead: Bruce Kay, Environment Canada)

... WORK GROUP SESSION OUTCOMES

Headline #3: "Local governments, First
Nations, Senior Governments,
Business and NGO's Agree on
Common Environmental Indicators
for Valuable Watershed"

Participants in this session saw an opportunity to work from a common desire to develop "generic indicators" and build on what is already known. Constraints included lack of long-term funding and/or commitment, differing and changing political agendas and priorities, and regulatory burdens/lack of incentives.

Desired Actions

- Establish process to choose common environmental indicators
- Identify "stakeholders"
- Establish Steering Committee
- Develop criteria (i.e. reflects goals of local, provincial, federal, First Nation)
- Hold workshop
- Measure/report on existing data for chosen indicators
- Implement communications strategy and education program
- Develop economic/regulatory incentives to enable achievement of benchmarks

Potential Partnerships

Dependent on pilot watershed chosen but would broadly encompass all levels of government, First Nations, community and business interests.

Follow-up

A common theme across all three headlines was the need to improve mechanisms for accessing and sharing data and information, and to move towards the development of a common set of indicators that can be applied across a number of jurisdictions, be reported on to provide a measurement of progress, and assist community groups in building capacity in understanding and taking action on environmental issues.

WILDLIFE AND HABITAT CONSERVATION

The following headlines were identified by this working group and were described as an ideal vision for the year 2003:

Grey Whales Seen in Sannich Inlet

Gray Squirrais Eliminated

Washington Donates Extirpated Butterfly

Broom Swept From Island Ecosystom.

RTK Program Grounded. Sypsy Meth Eradicated

58 Motor Rinarias Buffers Minimum in A.C.

500 New Conservation Covenants Signed in 2003

Bicycle Transportation New 25% of Traffic

Hartland Boad Landfill Bostored to Garry Bak Moadow

Enunsymaxiv Environmental Management Plan_ a success story

Marmets Are Back___population explodes on Vancouver Island.

All Residents on Vancouver Island New Compost Nonschold Waste

Red List Endangered On Vancouver Island....species decline haited

Intricate Network of Protected Areas Planned for Vancouver Island

Shellfish Clesures_a thing of the nest?

Carry Oak Habitat Expanding

Bally Catch of Cabe Increased to Seven Fish!

Ocean Spray Replaces Gorse

No Single Balled OH Tankers in Georgia Basin

Mass Local Buy-la To Babitat Protection

Population Ny___ Casaline Consumption Sown

LRT in Capital Region New 50% of Commuter Traffic

Nanalmo Man Chased Through Streets by Roosevelt Elk

25% of Poople New Work At Bome or Live Within Waiting Bistance of Work

Last Municipality on Vancouver Island Adopts Bylans To Protect Environment.

Local Firm Bevelops fuel Cell That Converts Bouseheld Waste Te Meet Demestic Heads

Thousands of Salmon Bun the Gorge

Ten Historical Streams Bestered Including Bowker Great

Participant Interests

Participants represented a broad range of interests from local, First Nation, provincial and lederal governments. Specific interests identified at the workshop included:

- Protected areas
- Forest conservation
- Partnering with community groups and planning
 Growth and people management
- Marine conservation
- Regulation

- Recovery of endangered species
- Alien species
- Fish.

Outcomes Identified by Participants

- Learn more about how government agencies can work together
- Concerns about "downloading" and how to deal with these concerns
- Desire to develop partnerships/actions

WORK GROUP SESSION OUTCOMES

Participants in this work session developed a long list of headlines. Then they reduced the number of headlines into three principle areas of interest.

Headline #1: "Recovery of Species at Risk"

Desired Actions

- Identify species and ecosystems at risk
- Use biological knowledge to group ecosystems
- Determine management steps needed to reduce numbers of areas at risk
- Alien species control
- Protected areas design
- Stewardship options for private land
- Comprehensive network of protected areas and sensitive management of private lands
- Create ecosystem recovery plans
- Regular monitoring for status up-date

What's Needed?

- Effective partnerships
- Funding resources
- Appropriate regulations to ensure and/or support wise stewardship
- Developing a code of ethics and social desire to change
- Implementation of management plans

Potential Partnerships

Partnerships were seen as being very broad, including federal, provincial local governments, First Nations, NGO's, community groups. This reflects the need to find and share data and information amongst all users and generators.

WILDLIFE AND HABITAT

Headline #2: "Creating Mass Buy-in To Habitat Protection"

Desired Actions

- Based on the principle that public values and ethics drive legislation and regulation
- Use the media extensively as the instrument of change
- Develop and promote Greenways as a demonstration/education and promotional tool for raising awareness on habitat issues
- Catalogue and publicize habitats that will be lost to undisciplined growth
- Develop and demonstrate a "disaster" scenario or "catastrophe" before it happens
- Learn from the recycling program which has tremendous buy-in despite costs, use peer pressure and encourage direct involvement
- Demonstrate and provide solid financial benefit of habitat protection to property developers and landowners
- Target information programmes to the right demographics
- Recognize that the media support is fundamental to creating a paradigm shift
- Provide clear tax benefit structure to habitat protection

What's Needed?

Well coordinated efforts that are far-sighted in scope that work to create the societal change necessary to provide responsive and real habitat protection.

Potential Partnerships

This proposed initiative is very broad in scope as it requires a well-orchestrated mix of business, media and property owners to work collaboratively with NGO's, First Nations and all other levels of government.

... WORK GROUP SESSION OUTCOMES

Headline #3: "Watershed Plan in the Georgia Basin - Planning and Partnerships"

Desired Actions

- Establish a process to identify a watershed area with a reasonable prospect for the development of a watershed management plan i.e. Cowichan River Estuary
- Identify key partners
- Initiate an Integrated Watershed Planning Process
- Identify lead agency/authority
- Determine existant levels of activity
- Determine current levels of resourcing
- Who needs to be there that isn't
- develop budget partnership
- Use GBEI as the facilitation

What's Needed?

Within the Georgia Basin, a review process needs to be developed to compare and contrast watersheds and determine which has the best potential for the development of a Watershed Management Plan.

Potential Partnerships

Potential partners are those of past Watershed Management Plans such as Fraser River Action Plan. Scope includes: business, forestry, fishers, industry, all orders of government, includeing First Nations, and residents, landowners, farmers, non-government organizations and youth.

[&]quot;PORGING PARTNERSHIPS"

...CLOSING PLENARY

Session highlights were presented by a spokesperson from each of the four work groups. The day ended with some closing remarks about the next steps in the process of partnering with local government.

Bruce Kay, Manager, Georgia Basin Coordination Office, Environment Canada. gave an overview of GBEI's next steps

Next Steps and Closing...

Greater involvement of local governments is one key to the success of the GBEI. To build on the progress of the day's workshop, GBEI will follow through by announcing pilot project opportunities for collaborative partnerships, by opening more lines of communication with local government and by taking steps to build general public awareness.

GBEI will also work to communicate how the GBEI works, what projects are funded and how funding is provided. More information will be made available on what the GBEI does, and in particular, on what projects were funded last year.

As a result of the workshop, GBEI will followup with the following:

- Provide a project inventory for 1998/99, including contacts
- Provide a summary report of local government Growth Strategy Performance Measures
- Provide a summary of the June 17 Indicators workshop held in
- Hold an annual public forum to review progress, identify new partnerships, confirm priorities
- Use the workshop outcomes as a basis for further communication with local governments and as input to do GBEI's Year 3 planning (next year) with a goal of develoing specific joint projects

The workshop and day drew to a close with a few words of appreciation and thanks from Cresswell Walker, the workshop coordinator

A thank you for all of your good work

Appreciation was expressed to the day's speakers and facilitators, to the GBEI staff and to all of the participants for their contribution to the workshop.

STORMWATER PLANNING AND MANAGEMENT

Work Session Facilitator:

Cynthia Hawksworth Regional Director - Vancouver Island MMA, Growth Strategies Office 800 Johnson St. Victoria, B.C. V8V 1X4 (250) 387-4071 (250) 356-9019 chawkswo@hq.marh.gov.bc.ca

Participants:

Dave Brown
Regional Manager, Pollution prevention
MELP
2080 Labieux Rd.
Nanaimo, B.C. V6T 6E9
(604) 751-3176
250-751-3103
dfbrown@nanaimo.env.gov.bc.ca

Shelley Forester
Manager , Water Quality Section
MELP
Box 9340 STN PROV GOV
Victoria, B.C. V8W 9M1
250-387-9495
250-356-8298
sforrest@epdiv1.env.gov.bc.ca

Mac Fraser Manager of Operations Village of Cumberland Box 340 Cumberland, B.C. VOR 150 (250) 336-2291 (250) 336-2321

Dalia Hall Environmental Technician City of Victoria #1 Centennial Square Victoria, B.C. V8W 1P6

R.J. Howat
Provincial Approving Officer
Ministry of Transrtation & Highways
6475 Metral Dr.
Nanaimo, B.C. V9T 2L9
(250) 390-6180
(250) 390-6191
rhowat€vincs.gems.gov.gov.bc.ca

Dalia Hull Environmental Technician CRD Box 1000, 524 Yates St. Victoria, B.C. V8W 256 (250) 360-3252 (250) 360-3254 dhull@crd.bc.ca

Bruce Kerr Manager Water & Environment Engineering #1 Centennial Square Victoria, B.C. V8W 1P6 (250) 361-0308 (250) 361-0311 brucek@city.victoria.bc.ca

Robert Lapham General Manager of Development Services Regional District of Nanaimo Box 70 Lantzville, B.C. VOR 2H0 (250) 390-1542 (250) 390-6560

Peter Law Urban Habitat Specialist MELP 2080 A-Labieux Rd. Nanaimo, B.C. V9T 6J9 (250) 751-3229 (250) 751-3103 plan@nanaimo.env.gov.bc.ca

Ronald Neufeld Engineering Department District of Campbell River 301 St. Ann's Road, Campbell River, B.C. V9W 4C7 (250) 286-5745 (250) 286-5762 RONSTER_N@hotmail.com

Natalie Cielanga Engineering Technologist Regional District of Nanaimo Box 70 Lantzville, B.C. VOR 2H0 250 390 1542 250 390 6560 ncielan@rdn.bc.ca Terry Polluck
Regional Manager, Planning
Ministry of Transportation
6475 Metral Dr.
Nanaimo, B.C. V9T 2L9
(250) 390-6174
(250) 390-6191
tpollock@vines.gems.gov.bc.ca

Helene Roberge Ilution Prevention Officer MELP 2080 A-Labieux Rd. Nanaimo, B.C. V9T 6J9 (250) 751-3197 (250) 751-3103 hdroberg@nanaimo.env.gov.bc.ca

Harriet Rueggeberg
Environ. Planner, Strategic Planning
City of Nanaimo
455 Wallace St.,
Nanaimo, B.C. V9R 5J6
(250) 755-4483
(250) 755-4403
hrueggeb@city.nanaimo.bc.ca

Brain Tutty
Habitat Biologist
Fisheries & Oceans Canada
3225 Stephenson Pt. Rd.
Nanaimo, B.C. V9T 1K3
250-756-7265
250-756-7162
tuttyb⊕m-dfo.gc.ca

Lisa Walls
Head, Technology and Pollution Prev.
Environment Canada
224 West Esplanade
N. Vancouver, B.C. V7M 3H7
(604) 666-6262
(604) 666-7294
lisa.walls@ec.gc.ca

Wayne Haddow Regional Agrologist Ministry of Agriculture & Food 1575 Duncan St. Duncan, B.C. V9L 5G2 (250) 746-1210 (250) 746-1293 whaddow@p.gov.bc.ca

MON-POINT SOURCE WATER CONTAMINATION

Work Session Facilitator:

Bruce Holms Water Resource Specialist MELP Box 9340 Stn Prov Govt Victoria, B.C. V8W9M1 (250) 387-9508

Participants:

Tom Anderson Manager, Development Services Cowichan Valley Regional District 137 Evans St., Duncan, B.C. V9L 1P5 (250) 746-2500 (250) 746-5612 cyrdds@island.net

David Coombe Senior Environmental Health Officer **Fisheries** 1665 Grant Ave. Nanaimo, B.C. V95 5K7 (250) 756-9625 (250) 755-3372 david.coombe@cvihr.bc.ca

Richard Drake Technical Advisor Village of Cumberland Box 340 Cumberland, B.C. VOR 150 250-336-2291 250-336-2321

Sharon Erickson **Environmental Assesment Officer** MELP 2080A Labieux Rd. Nanaimo, B.C. V9T 619 (250) 751-3153 (250) 751-3103 serickso@nanaimo.env.gov.bc.ca

Wayne Haddow Regional Agrologist Ministry of Agriculture & Food 1575 Duncan St. Duncan, B.C. V9L 5G2 (250) 746-1210 (250) 746-1293 whaddow@p.gov.bc.ca

Gordon Hanson Consultant First Nations/GRFI Gordon Hanson & Assoc. Consulting Inc. 7956 Pirates Rd. R.R.#2 Pender Island, B.C. VON 2M2 250-629-9923 250-629-3161 ghanson@gulfislands.com

Harry Harker Director of Planning Regional District of Comox Strathcona Box 3370 4795 Headquarters Courtenay, B.C. V9N 5N5 (250) 334-6030 (250) 334-4358 rdcsplan@mars.ark.com

Bill Huot Senior Planner Ministry of Muninciple Affairs Box 9490 Stn Prov Govt Victoria, B.C. V8W 9N7 (250) 387-4041 (250) 387-7972 bhuot@hq.marh.gov.bc.ca

March Klaver Water Quality Biologist DFO 250-4877 Argyle St. Port Alberni, B.C. V9Y 1V9 (250) 724-0195 (250) 724-2555 klaverm@dfo-m.gc.ca

Barb Oleschuk Coordinator, GBEI Health Canada 235-757 West Hastings St. Vancouver, B.C. V6C 1A1 604-666-1747 604-775-8716 Barb_Oleschuk@hc-sc.gc.ca

Gary Pleven **Ilution Abatement Officer** City of Victoria #1 Centennial Square Victoria, B.C. V8W 1P6 (250) 361-0314 (250) 361-0311 garyp@city.victoria.bc.ca

Kevin Rieberger Non-int Ilution Specialist MELP 2975 Jutland Rd. Victoria, B.C. V8T 519 (250) 387-9502 (250) 356-8298 krieberg@epdiv1.env.gov.bc.ca

Kevin Ronneseth Groundwater Hydrologist MELP Box 9340 Stn Prov Govt Victoria, B.C. 250-356-5180 KRONNESE@water.env.gov.bc.ca

Dave Walker Sr. Technologist, Shellfish & Aqua **Environment Canada** 224 West Esplanade N. Vancouver, B.C. V7M 3H7 (604) 666-3339 (604) 666-9107 david.walker@ec.gc.ca

Phil Wong Senior Program Engineer **Environment Canada** 224 West Esplanade N. Vancouver, B.C. V7M 3H7 (604) 666-2699 (604) 666-7294 phil.wong@ec.gc.ca

ENVIRONMENTAL INDICATORS AND BENCHMARKS

Work Session Facilitator:

Bruce Kay
Environment Canada
Manager GBEI Coordiantion Office
700-1200 West 73rd Ave.
Vancouver, B.C. V6P 6H9
(604) 713-9527
(604) 713-9528
bruce.kay@ec.gc.ca

Participants:

Cheri Ayers
Fisheries Biologist
Cowichan Tribes
5760 Allenby Rd.
Duncan, B.C. V9L 5J1
(250) 748-1233
(250) 748-3196
cayers@island.net

Mary Beth Berbube
Manager, Communications
Environment Canada
700-1200 West 73rd Ave.
Vancouver, B.C. V6P 6H9
(604) 713-9513
604-713-9517
marybeth.berbube@ec.gc.ca

Neil Connelly
GM of Community Service
Regional District of Nanaimo
Box 40 Hammond Bay Rd
Lantzville, B.C. VOR 2H0
(250) 390-6511
(250) 390-6510
nconn@rdn.bc.ca

Christine Dockman
Health Canada
235-757 West Hastings St.
Vancouver, B.C. V6B 5G3
Christine_Dockman@hc-sc.gc.ca

Sharon Fletcher
Manager, Strategic Planner
City of Nanaimo
455 Wallace St.
Nanaimo, B.C. V9R 5J6
(250) 755-4483
(250) 755-4403
sfletcher@city.nanaimo.bc.ca

Chris Goldburn Research Planner CRD Box 1000 Victoria, B.C. V8W 2S6 (250) 360-3156 (250) 360-3159 cgoldburn@crd.bc.ca

Chris Hall Municipal Planner District of North Cowichan Box 278 Duncan, B.C. V9L 3X4 (250) 246-3120 (250) 746-3154 hall@norhtcowichan.bc.ca

Quentin Hanchard
Planning Intern
District of Central Saanich
1903 Mt. Newton Cross Rd.
Saanichton, B.C. V8M 2A9
(250) 544-4217
(250) 652-4737
Qfull. Hfull@district.central-saanich.bc.ca

Kathleen Johhnie Nanaimo First Nations Nanaimo, B.C. Tim Kulchyski Fisheries Technition Cowichan Tribes 5760 Allenby Rd. Duncan, B.C. V9L 5J1 (250) 748-1233 (250) 748-3196

Mike Lambert
Planning & Assessment Officer
MELP
2080-A Labieux Rd.
Nanaimo, B.C. V9T 6E9
250-751-3170
mlambert@nanaimo.env.gov.bc.ca

Narender Nagpal Senior Standards Agrologist MELP 2975 Jutland Rd. Victoria, B.C. V8T 5J9 250-387-9507 (250) 356-8298 nnagpal@epdiv1.env.gov.bc.ca

Mary O'Brian
Oceanographic Technition
Institute of Ocean Sciences
Sidney, B.C. V8L 4B2
(250) 363-6716
(250) 363-6807
obrienm@dfo-m.gc.ca

WILDLIFE AND HABITAT

Work Session Facilitator:

Marc Pakenham Community Advisor DFO 25 Huron Street Victoria, B.C. V8V 4V9 (250) 480-2794 (250) 480-2793 pakenhamm@dfo-mpo.gc.ca

Participants:

Ken Brock
Conservation Strategies Biologist
Environment Canada
5421 Robertson Rd., R.R.#1
Delta, B.C. V4K 3N2
604-940-4690
(604) 946-7022
ken.brock@ec.gc.ca

Kevin Brydges
Environmental Co-ordinator
City of Nanaimo
455 Wallace St.
Nanaimo, B.C. V9R 5J6
(250) 755-4460
(250) 755-4439
kbrydges@city.nanaimo.bc.ca

Bob Buchan
Director of Planning
Langford Municipality
2805 Carlow
Victoria, B.C. V9B 4E4
(250) 478-7882
(250) 478-7864
robbucan@district.langford.bc.ca

Marlene Caskey
District Habitat Officer
MELP
2080-A Labieux Rd.
Nanaimo, B.C. V9L 6J9
(250) 751-3220
(250) 751-3103
mcaskey@nanaimo.env.gov.bc.ca

Andre Harcombe Program Coordinator, MELP Box 9344 Stn Prov Govt Victoria, BC, V8t 5J9 250 3879798 250 387 2733 Peter Crawford
Planner
City of Courtenay
830 Cliliffe Ave.,
Courtenay, B.C. V9N 2J7
(250) 334-4441
(250) 334-4241
planning@city.courtenay.bc.ca

Coral De Shield
Habitat Conservation Planer
Pacific Wildlife Research Centre
RR#1, 5421 Robertson Rd.
Delta, B.C. V4K 3N2
(604) 940-4657
(604) 946-7022
coral.deshield@ec.gc.ca

Bonnie Blue Planner Regional District of Nanaimo Box 70 Lantzville, B.C. VOR 2H0 (250) 390-6510 (250) 390-6511 bblue@rdn.bc.ca

Trish Hayes Manager Enviornment Canada 5421 Robertson Rd. Delta, B.C. V4k 3N9 604 940 4658 604 946 7022 trish.hayesb@ec..gc.ca

Karen Hurley
Manager, Environmental Services
District of Saanich
770 Vernon
Victoria, B.C. V8X 2W7
(250) 475-1775
(250) 475-5450
hurleyk@dove.saanich.bc.ca

Charles Seymor Kelly Poulin Cowichan Tribes 5760 Allenby Road Duncan, B.C. V9L 5J1 250 748 3168 250 748 1233 Jana Kotaska
Environmental Advisor
Cowichan Tribes
5760 Allenby Rd.
Duncan, B.C. V9L 5J1
(250) 748-3196
(250) 748-1233
ikotaska@island.net

Bob Maxwell
Soil Science
MELP
Box 2975 Jutland Rd.
Victoria, B.C. V8W 9M1
(250) 387-9783
(250) 387-2733
bmaxwell@fwhdept.env.gov.bc.ca

David Morris Planner Provincial Capital Commission 613 Pandora Street, Victoria, B.C. V9A 5N4 (250) 953-8806 (250) 386-1303

Liz Stanlake
Head, Biological & Evaluation Services
MELP
Box 9354 Stn Prov Gov
Victoria, B.C. V8W 9M1
250-387-1159
250-952-6584
Istanlak@gems4gov.bc.ca

Laura Taylor
Director, Environmental Services
Capital Regional District
524 Yates Street, Box 1000
Victoria, B.C. V8W 2S6
(250) 360-3093
(250) 360-3079
Itaylor

w.crd.gov.bc.ca

Tracy Fleming
Parks Planning
Capital Regional District
490 Atkins Ave
Victoria, B.C. V9B 2Z8
(250) 478 3344
(250) 478 5416
jward@.crd.gov.bc.c